



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,201	02/04/2004	David R. Strip	86843AJA	4246

7590

09/19/2005

Paul A. Leipold
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

SARKAR, ASOK K

ART UNIT

PAPER NUMBER

2891

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,201

Applicant(s)

STRIP, DAVID R.

Examiner

Asok K. Sarkar

Art Unit

2891

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 5 – 8 of remarks, filed September 6, 2005, with respect to the rejection(s) of claim(s) 1 – 22 under 35 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of *newly found prior art reference(s)*

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Daniels, US 2005/0025881.

Regarding claim 1, Daniels teaches a method of manufacturing a flat panel light emitting device having predetermined dimensions, comprising:

a) forming an area of light emitting materials on a substrate, the area comprising an array of electrically connected light emitting elements and having dimensions larger than the predetermined dimensions as shown with respect to Figs 10 – 13 in paragraphs 113 – 117 (since the electrically connected elements

are continuously made on a flexible substrate the dimensions are larger than the predetermined dimensions of the actual display and they need to be cut) ; and
b) cutting a portion of the array of electrically connected light emitting elements having the predetermined dimensions from the substrate to form the flat panel light emitting device in paragraphs 2 – 10.

Regarding claims 2, 3, 4 and 7, Daniels teaches the LED device is a light source for illumination and back light in paragraph 2.

Regarding claim 5, Daniels teaches the light emitting area includes an array of light emitting elements that are connected in series with reference to Figs. 11, 14 – 21 and 25 - 27.

Regarding claim 8, Daniels teaches the elements of the array each include three distinct light emitting regions, wherein one region emits red, one region emits green, and one region emits blue with reference to Fig. 16 and paragraph 12.

Regarding claim 9, Daniels teaches the device is a passive matrix display in paragraph 25.

Regarding claims 11, 12, 13 and 14, Daniels teaches the substrate can be in the form of rigid, flexible, sheet and web in various places of the disclosure such as paragraphs 10, 12 and 102 and with reference to Fig. 13.

Regarding claim 15, Daniels teaches the light emitting materials form an OLED in paragraph 3.

Regarding claim 16, Daniels teaches the area of light emitting materials comprise elongated light emitting elements with reference to Figs 12 and 14.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels, US 2005/0025881 in view of Dokoupil, US 2002/0075677.

Daniels fails to teach the light emitting area includes an array of light emitting

elements that are connected in parallel.

Dokoupil teaches that depending on the application say for example night light, the LEDs can be connected in anti-parallel mode (see paragraph 16) for the benefit of energy saving in paragraph 3.

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify Daniels and use his arrays of OLEDs and connect them in parallel for night light application for the benefit of energy saving as taught by Dokoupil in paragraph 3.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels, US 2005/0025881 in view of Ayres, US 6,897,843.

Daniels teaches use of his product in many devices in paragraph 2, but fails to teach the device is an active matrix display.

Ayres teaches that active matrix display devices are used in many common devices in column 1, lines 7 – 13.

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention that majority of Daniels' devices are active matrix display devices.

9. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels, US 2005/0025881.

Daniels teaches continuous formation of array panels with reference to Figs. 12 – 15 that are used in display devices of various sizes, but fails to teach the steps of determining an optimum arrangement of multiple Light emitting devices having one or more or multiple predetermined dimensions to be cut from the array.

However, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify Daniels and determine an optimum arrangement of multiple light emitting devices having one or more or multiple predetermined dimensions to be cut from the array since the number of arrays required for a device will depend on the size of the display for the device.

10. Claims 19 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels, US 2005/0025881 in view of Grace, US 2002/0196401 and Hermens, US 5,706,069.

Regarding claims 19 - 22, Daniels teaches about electrically connecting the light emitting elements, but fails to teach the steps of providing electrical conductors between the light emitting elements and the periphery of the portion, providing a cover over the light emitting device, leaving the electrical conductors extending beyond the cover and sealing the cover to the substrate to encapsulate the light emitting materials between the substrate and the cover and further comprising the step of removing overlying materials to expose the electrical contacts beyond the cover.

Grace teaches providing electrical conductors between the light emitting elements with reference to Figs. 16 – 18, and the periphery of the portion, providing a cover over the light emitting device, and sealing the cover to the substrate to encapsulate the light emitting materials between the substrate and the cover in paragraph 5 for the benefit of manufacturing a large area display of light weight in paragraph 8.

Therefore, it would have been obvious to one with ordinary skill in the art at the

Art Unit: 2891

time of the invention to modify Daniels and provide electrical conductors between the light emitting elements and the periphery of the portion, providing a cover over the light emitting device, and sealing the cover to the substrate to encapsulate the light emitting materials between the substrate and the cover for the benefit of manufacturing a large area display of lightweight as taught by Grace in paragraph 8.

Hermens teaches making a large area display device where he teaches leaving the electrical conductors extending beyond the cover and sealing the cover to the substrate to encapsulate the light emitting materials between the substrate and the cover and further comprising the step of removing overlying materials to expose the electrical contacts beyond the cover with reference to Fig. 1 and associated descriptions in the disclosure for the benefit of producing display devices more efficiently.

Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to modify Daniels and leave the electrical conductors extending beyond the cover and sealing the cover to the substrate to encapsulate the light emitting materials between the substrate and the cover and further comprising the step of removing overlying materials to expose the electrical contacts beyond the cover for the benefit of producing display devices more efficiently as taught by Hermens.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Singh, US 6,259,838 teaches making OLED arrays within a fiber material and then cutting them to desired dimension to use them in display devices.

Art Unit: 2891

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asok K. Sarkar whose telephone number is 571 272 1970. The examiner can normally be reached on Monday - Friday (8 AM- 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William B. Baumeister can be reached on 571 272 1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Asok Kumar Sarkar

Asok K. Sarkar
September 16, 2005

Primary Examiner